ABSTRACT

A filter (41) traps particulate matter contained in the exhaust gas of an engine (1). The filter (41) is regenerated by burning the trapped particulate matter by raising the temperature of the filter (41). When regeneration conditions are satisfied, a controller (31) raises the exhaust gas temperature to a first target exhaust gas temperature via an exhaust gas temperature adjusting mechanism (10) (S39), and burns the trapped particulate matter to regenerate the filter (41). When the engine (1) has rapidly decelerated during regeneration, the controller (31) decreases the exhaust gas temperature to a second target exhaust gas temperature lower than the first target exhaust gas temperature (S44, S45), and increases the exhaust gas flow rate (S52), thereby preventing the filter (41) from exceeding an upper limiting temperature.